

# Loop-the-Loop

**Estimated Time for Activity:** ~5 minutes

**Optional Objectives:**

*The students will:*

- Gain insight into concepts of energy and conservation thereof
- Gain understanding in circular motion

**Materials:**

- Loop-the-loop
- Metal ball bearing

**Optional Vocabulary:**

- Conservation of energy
- Kinetic energy
- Potential energy
- Centripetal acceleration

**Procedures:**

- Start the ball at the long gentle sloped side of the loop-the-loop, and let the ball go.
- Now, start the ball at the other side and notice it cannot make it around the loop.

**Optional Post-Activity Question(s):**

- Why could the ball make it from one way but not the other?
- What kept the ball on the track in the loop?